

Paradigm Shift of Microfinance Institutions in Nepal: A Mixed Method Approach

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Abstract

This study examines how transforming from non-profit oriented to profit-oriented MFIs in Nepal impacted their performance. A mixed-methods Approach was applied where quantitative data was analysed using a Propensity Score Matching (PSM), followed by qualitative thematic analysis. The results show that the transformation of MFIs reduces their profitability and operational self-sufficiency in the short run but increases in the long run. Further, the study found that the number of clients and the loan size of profit-oriented MFIs are increasing in Nepal, which suggests that the MFIs in Nepal are drifting away from their main mission of social welfare, also known as mission drift.

Keywords: Non-profit oriented, Profit-oriented, Microfinance institutions, Nepal, Propensity score matching, Mixed Method

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I. INTRODUCTION

Microfinance Institutions (MFIs) have been operating in Nepal for many years. The first formal MFI in Nepal was established in 1990. Initially, MFIs were mainly non-profit oriented in Nepal; however, in recent years, the industry has undergone various changes, such as the switch from group lending to individual lending and the switch from microcredit to microfinance. More importantly, Financial intermediary Non-Governmental Organisations (FINGO), which are non-profit oriented organisations transforming into profit-oriented MFIs. These significant changes began in 1998 when the Enactment of the Development Bank Act 1996 created the opportunity for FINGOs to transform into Class D MFIs in Nepal. Nirdhan was the first NGO to change, becoming Nirdhan Utthan MFI in 1998. Since then, many FINGOs have transformed into full-fledged MFIs. There were only 16 profit-oriented MFIs in Nepal in 2012, but there are 57 profit-oriented MFIs in Nepal in 2024 (NRB, 2024). In contrast, there were 36 FINGOs in 2012 in Nepal, but that decreased to 24 in 2018 before they completely disappeared in 2020 (NRB, 2024).

The number of MFIs shifted from non-profit oriented to profit oriented in Nepal increased by more than 300% from 2012 to 2024. Moreover, MFIs in Nepal are more focused on densely populated areas. The clients registering in more than one MFI have been a common practice in many areas of Nepal (Jha, 2017). Dhakal (2007) stated that profit-oriented MFIs deliver their services in urban and densely populated peri-urban areas while highlighting the emerging issues in the Nepalese microfinance sector. This suggests that MFIs in Nepal have started to focus on profitability.

Despite the significant changes in the microfinance sector in Nepal, few studies have investigated the impact of transforming from non-profit oriented to profit-oriented MFIs on their Performance in Nepal. Therefore, this study investigates how transformation impacted their own performance in Nepal. This study contributes to the literature by empirically examining the impact of transforming non-profit oriented MFIs into profit-oriented MFIs on their financial performance and outreach in Nepal. Further, this study also contributes to the literature by developing a theoretical framework of how the transformation of MFIs impacts their performance for the first time.

II. LITERATURE REVIEW

Most of the prior studies have analysed the effects of microfinance on the Nepalese economy and clients' livelihoods. Some studies found that microfinance has yielded positive outcomes, whereas others reveal adverse effects. Consequently, the literature is divided into two themes: positive and negative impacts.

Adhikari and Shrestha (2013) studied the economic impact of microfinance in Nepal using a case study of Manamaiju Village Development Committee in Kathmandu. The study found the positive economic impact of microfinance loans, as 98% of the borrowers are earning profits from their business after utilising the loan. Similarly, Dhakal and Nepal (2016) examined the impact of microfinance on the socio-economic development of the rural community using a case study of the Syangha district in Nepal. Their findings indicated a positive effect, as 25% of respondents agreed and 75% strongly agreed that microfinance contributes to increasing beneficiaries' incomes. Further, Oli (2018) investigated the impact of microfinance institutions on the economic growth of Nepal and found that an increase in MFIs' assets and loans leads to an increase in the GDP and per capita income of Nepal. Meanwhile, Chapagain and Aryal (2018) analysed the intervention of microfinance on livelihood status and found higher income, consumption expenditure, capital expenditure, and monthly savings of the microfinance intervention respondents compared to the non-intervention respondents. In addition, Bhatta (2024) also found that access to microfinance leads to positive socioeconomic outcomes.

In contrast, the Centre for Policy Studies and Rural Development (2004) studied the impact of microfinance programmes implemented by MFIs in Nepal and found that MFIs in Nepal are not highly effective in achieving their expected objectives, as only a quarter of the participants felt there had been improvement in their socio-economic conditions. They stated that microfinance only helped to reduce dependency on agriculture by enabling women to start non-farm activities, but these sorts of activities have not generated non-family employment. Overall, they concluded that microfinance programmes have low outreach in the hill areas and a lack of focus on

the ultra-poor people, with their focus being instead on sustainability. Likewise, Sigdel (2009) examined the impact of microfinance on poverty alleviation and stated that despite MFIs existing in Nepal for decades, their outreach has clustered around the most accessible regions and areas of the country. Most of the poor people who need loans are not reached by MFIs in Nepal as they live in rural areas of the country; thus, outreach remains insufficient. Moreover, Paudel (2013) investigated the effects of microfinance on the living standards of Nepalese households. Paudel found that although the microfinance clients' loan portfolios were outstanding, and savings were increasing, the level of poverty remained the same in rural households of Nepal. Similarly, Bhatta (2024) reveals challenges such as over-indebtedness and repayment stress among microfinance borrowers.

The literature review presented above indicates that the majority of microfinance studies in Nepal have primarily focused on assessing the impact of microfinance on living standards and economic outcomes, frequently employing relatively less rigorous quantitative analytical methods. As a result, these studies may not have sufficiently addressed various underlying issues within the data. More importantly, the review identifies a significant gap in the existing literature: no research to date has examined how the transition of microfinance institutions in Nepal from a non-profit to a profit-oriented model has affected their performance. Furthermore, only a limited number of studies have adopted a mixed-methods approach when investigating the impacts of microfinance in the Nepalese context.

III. DATA AND RESEARCH METHOD

To fill the methodological gap stated above, this study applied mixed methods that include both quantitative and qualitative methods. Firstly, the quantitative study has been conducted, and then a qualitative study in a later stage, also known as the explanatory sequential mixed method.

3.1 Quantitative Data Collection

This study has used secondary quantitative data as part of the quantitative study. The quantitative data related to MFIs are collected from the MIX Market platform (www.databank.worldbank.org/source/mix-market), whereas rule of law and real interest rate related data are collected from the World Bank database (www.worldbank.org/en/publication/worldwide-governance-indicators) and business freedom data from the Heritage Foundation website (www.heritage.org/index/). The unbalanced panel data includes 41 MFIs from Nepal covering the period of 2002 to 2018². The data related to the MFIs from Nepal was not available beyond 2018 at the time of data collection for this research. Therefore, the last year covered in this study is 2018. The MIX Market provides a diamond ranking (5 being the complete data and 1 being incomplete) that represents the quality of the data. This study has used data that score 3 or above for data quality purposes, where 3 diamonds mean that the MFI has reported their financial data for two or more consecutive years.

3.2 Dependent and Independent Variables

Financial performance is measured using Return on Assets (ROA) and operational self-sufficiency (OSS) (Mersland and Strom, 2009). Outreach has been measured using the breadth and depth of outreach. The breadth of outreach is measured through the number of active borrowers (NAB) and the depth of outreach is measured through Average loan size (ALS) which is calculated using the formula average loan balance per borrower divided by gross national income per capita (GNI per capita) (Mersland & Strøm, 2009; Cull et al., 2009).

The main independent variable is the profit orientation of MFI. If an MFI is profit-oriented, it is given the value 1, and if an MFI is non-profit oriented, it is given the value 0.

2 The Mix Market does not provide when the non-profit oriented status of MFI changed to profit status. It only provides the status of the MFI during the reporting period.

3.3 Control Variables

This study has controlled for the effect of MFIs' characteristics, such as assets as a proxy for size and a maturity dummy to control for the age impact. The assets variable has been transferred into a log variable to remove the outlier issue and make the variable more symmetric. In addition, we have also included the country-level variables that may have an impact on the performance of MFIs. We control for the rule of law, Interest rate and business freedom as these indicators have variation over the year in the context of Nepal.

3.4 Description of Variables

Variable	Definition	Formula	Data Source
Dependent Variable			
Financial Performance			
Return on assets (ROA)	Net Operating income (less of taxes) compared to average assets. It measures how the institution is managing its assets to optimise its profitability. This ratio excludes donations and non-operating items.	Net operating income less taxes / Average Assets	Mix
Operational self-sufficiency (OSS)	Measures the institution's ability to cover its costs through operating incomes. Financial expense, impairment losses on loans and operating expenses are included in the calculation as they are a normal and significant cost of operating an institution.	Financial Revenue / (Financial expense on funding liabilities + Net impairment Loss on gross loan portfolio + Operating expense)	Mix
Outreach			
Log Number of active borrowers (Log NAB)	The number of individuals or entities that currently have an outstanding loan balance with the FSP or are primarily responsible for repaying any portion of the gross loan portfolio. Individuals who have multiple loans with FSPs are counted as a single borrower.	N/A	Mix
Average loan size (ALS)	Average outstanding loan balance per borrower compared to local GNI per capita to estimate the outreach of loans relative to the low-income population in the country.	Average loan balance per borrower / GNI per capita	Mix
Independent Variables and Control Variables			

Variable	Definition	Formula	Data Source
Profit-oriented MFI	1 if MFI is registered as a profit MFI, 0 if non-profit oriented.	N/A	Mix
Assets (Log)	The logarithm of the net assets of MFIs	N/A	Mix
Mature MFI	1 if MFI is operating for more than 8 years, 0 otherwise	N/A	Mix
Rule of law	Reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	Index ranges from -2.5 (weak) to 2.5 (strong) performance	World bank
Real interest rate	The rate of interest after adjusting for inflation	N/A	World bank
Business freedom	An overall indicator of the efficiency of government regulation of business. The quantitative score is derived from an array of measurements of the difficulty of starting, operating, and closing a business.	Index ranging from 0 to 100 (Higher score meaning the freedom, and the opposite is repression)	Heritage Foundation

IV. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Table 1: Descriptive statistics

Variable	Mean	Std. Dev.	Min	Max
ROA	0.014	0.041	-0.238	0.090
OSS	1.188	0.304	0.240	3.713
NAB	20,023	23,566.53	179	113,963
ALS	0.645	0.907	0	9.900
Profit-oriented MFI	0.401	0.491	0	1
Assets (Size)	5,287,199	7,009,064	10,381.46	4.12e+07
Mature MFI	0.7840	0.412	0	1
Rule of law	-0.748	0.128	-0.951	-0.470
Real interest rate	-.66	3.86	-6.82	4.16
Business Freedom	58.663	2.893	53.6	62.4

4.2 Correlation Matrix

Table 2: Correlation between all the dependent and independent variables

	ROA	OSS	Log NAB	ALS	Profit-oriented MFI	Assets (Log)	Mature MFI	Rule of law	Real interest rate	Business Freedom
ROA	1									
OSS	0.617	1								
Log NAB	0.166	0.067	1							
ALS	0.025	0.022	-0.315	1						
Profit-oriented MFI	-0.063	-0.095	0.538	-0.183	1					
Assets (Log)	0.189	0.122	0.845	0.035	0.432	1				
Mature MFI	-0.148	-0.152	-0.011	0.133	-0.369	0.089	1			
Rule of law	0.030	0.037	-0.054	0.069	0.081	-0.051	-0.141	1		
Real interest rate	0.112	0.046	-0.282	0.177	0.013	-0.251	-0.134	0.684	1	
Business Freedom	0.120	0.135	0.269	-0.018	0.027	0.332	0.049	0.150	-0.297	1

The above Table 2 shows that the independent variables are not highly correlated with each other, which suggests that no multicollinearity issue between the independent variables.

4.3 Quantitative Results

This study applied the Propensity score Matching (PSM) method to analyse the quantitative data. It is a commonly used method for impact analysis (Heckman et al., 1998) where a subject (i.e., MFI) receives treatment (i.e., profit-oriented MFI). In PSM, the choice of control variables should be guided by theory or empirical evidence and should include as many control variables as possible, but including unnecessary variables may also increase the variance of estimation and thus reduce its reliability, especially in small samples (Shahriar et al., 2018). We have used intuition and trial-and-error methods while selecting the control variables. We have tested assets, maturity of MFIs, ROA, OSS, NAB, and ALS. The results show that if we used all the

variables, the balancing property would not be satisfied, meaning the treatment and comparison groups are unlikely to be sufficiently similar. As a result, we have used MFI characteristics indicators (i.e., assets and mature MFIs) as control variables, as shown in equation (i), as these variables satisfied the balancing property condition.

Although the conditions are satisfied to use PSM, the method does not completely remove the bias estimation as it cannot control for unobservable characteristics that affect the performance of MFIs, but Heckman et al. (1998) stated that the bias coming from unobservable characteristics is small. The bias arising from PSM is negligible (Diaz and Handa, 2006). To summarise, even though PSM cannot eliminate the bias arising from unobservable characteristics, previous research indicates that this bias is likely to be small.

PSM estimates propensity score based on observable characteristics (control variables), and then two subjects with similar propensity scores are matched, where one has received the treatment and the other has not. This study used the nearest neighbour matching method whereby a profit-oriented MFI and a non-profit oriented MFI with the closest propensity scores are matched. We have also applied a kernel matching (KM) method for robustness. The following Table 3 and 4 show the PSM results.

Table 3: Financial performance of MFIs: propensity score matching estimation.

Matching Method	<u>ROA</u>		<u>OSS</u>	
	Nearest Neighbor Matching (NNM)	Kernel Matching (KM)	Nearest Neighbor Matching (NNM)	Kernel Matching (KM)
ATT	-0.025	-0.024	-0.173	-0.137
Std. Error	0.006	0.006	0.101	0.023
t-statistics	-4.289	-3.824	-1.728	-5.939
No.of treated	130	130	130	130
No.of controlled	40	176	43	176

ATT: Average treatment effect on the treated. The rule of thumb is that t-statistics smaller than 2 (1.96 in a large sample) indicate that an estimate is not significantly different from zero at the conventional five percent level.

Table 3 above shows the results of the PSM estimation of financial performance indicators (i.e., ROA and OSS). The results reveal that a profit-oriented MFI has a significant negative impact on the ROA, as the t-statistic for ROA is negative and significant. The average treatment effect on the treated (ATT) value of ROA is -0.025 (2.5%) and -0.024 (2.4%). This suggests that profit-oriented MFIs earn 2.4–2.5% less profit than non-profit oriented MFIs. Similarly, OSS t-statistics are -1.728 and -5.939. It shows that OSS is not statistically significant using NNM, but is significant using KM. However, the OSS t-value (-1.728) is very near to 1.96. Therefore, it has been considered significant, and the ATT value of -0.137 and -0.173 indicates that profit-oriented MFIs are less operationally self-sufficient by 13.7%-17.3% than non-profit oriented MFIs in Nepal.

Table 4: Outreach of MFIs: propensity matching estimation.

Matching Method	<u>Log NAB</u>		<u>ALS</u>	
	Nearest Neighbour Matching	Kernel Matching	Nearest Neighbour Matching	Kernel Matching
ATT	0.254	0.352	-0.373	-0.193
Std. Error	0.736	0.349	0.592	0.139
t-statistics	0.345	1.009	-0.631	-1.387
No.of treated	130	130	130	130
No.of controlled	43	176	42	176

ATT: Average treatment effect on the treated. The rule of thumb is that t-statistics smaller than 2 (1.96 in a large sample) indicate that an estimate is not significantly different from zero at the conventional five percent level.

The results in Table 4 above present the PSM estimation of the outreach of MFIs. For the number of borrowers, t-statistic values are 0.345 and 1.009 and are not statistically significant. Similarly, the results show that the t-statistic value of ALS using NNM is -0.631 and using KM is -1.387, which are also not significant.

4.4 Qualitative Results

Although the quantitative study has been completed, the data used in the quantitative study is from 2002 to 2018, so it does not include data from recent years due to the lack of data availability. This means the quantitative study above does not represent the impact of the shift of MFIs in Nepal in recent years. Further, the Mix Market does not show when the non-profit oriented became a profit-oriented MFI. It only provides the status of the MFI during the reporting time, so the quantitative results may be misleading (Quantitative results should be interpreted carefully) and also does not show how the transformation from non-profit oriented to profit oriented affects performance. Therefore, a further qualitative study is conducted to mitigate the issues and improve the validity and reliability of the overall findings of the study. The qualitative data were collected using semi-structured interviews over Zoom from 7 MFIs. Initially, we contacted 40 MFIs that transferred from non-profit to profit-oriented, but only a few replied, agreeing to do the interview. As a result, data were collected only from 7 MFIs and were analysed using the thematic analysis technique. The following are the themes developed based on the analysis.

Theme 1: Positive impact

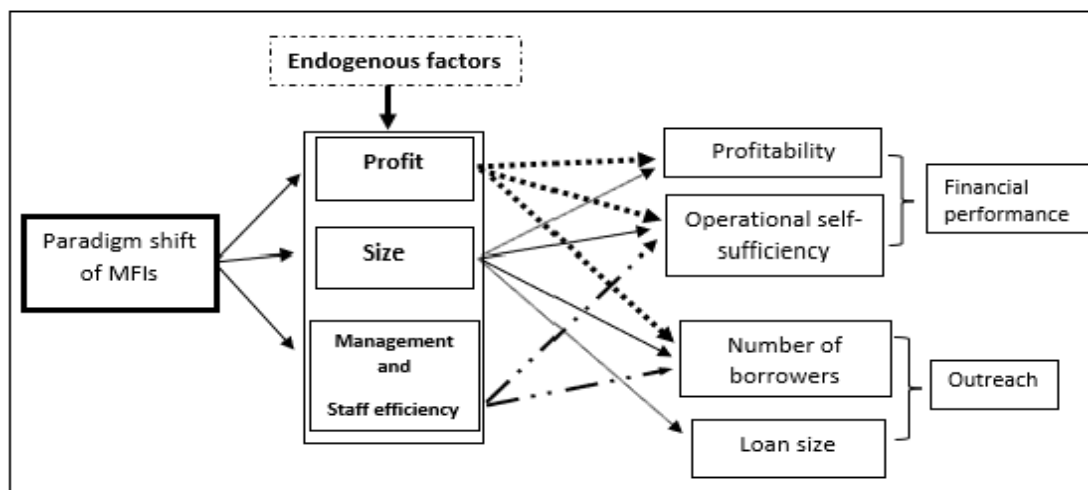
The findings show that the transformation of non-profit oriented to profit-oriented MFIs has had a positive impact on their financial performance and outreach in Nepal in recent years. The theme ‘positive impact’ suggests that the profitability, operational self-sufficiency, number of borrowers, and loan size of MFIs have been increasing due to the paradigm shift of MFIs in Nepal. This theme has been developed because the participants from non-profit MFIs stated that their profitability, operational self-sufficiency, number of borrowers, and loan size have been increasing after the transformation. However, a larger loan size represents a negative impact in the context of microfinance. This finding is slightly different from quantitative findings above; however, the participants also stated that the profitability and operational self-sufficiency reduce in short run when transformation takes place due to an increase in cost, but increase in the long run.

Theme 2: Endogenous Factors

Endogenous factors refer to the internal elements influenced by the transition of MFIs from non-profit to profit-oriented entities. These are factors under the direct control of the MFI, encompassing profit generation, institution size, and the efficiency of management and staff. The ‘profit’ dimension indicates a strategic shift in the institution’s core objective—from primarily social missions to profit maximisation following the transformation. Likewise, ‘size’ reflects the expansion of the MFIs, while ‘management and staff efficiency’ denotes improvements in internal governance and human resource performance attributable to the organisational shift.

The overarching theme of ‘endogenous factors’ has been formulated to capture the common thread linking these sub-themes—namely, that they are intrinsic and controllable drivers of institutional performance. As discussed under the preceding theme of ‘positive impact,’ the transformation of MFIs has been associated with enhanced profitability, greater operational self-sufficiency, an increase in the number of borrowers, and higher average loan sizes. These outcomes can be attributed to the evolution of endogenous factors within the institutions. Figure 1 below illustrates the pathways through which the transformation of MFIs fosters improved financial performance and outreach, highlighting the specific endogenous factors that influence each dependent variable, as indicated by the directional arrows.

Figure 1: Theoretical Framework



Source: Self-Created

Theme 3: Exogenous Factors

The third theme created based on the qualitative analysis is ‘Exogenous factors’. The theme ‘exogenous factors’ refers to factors that are not under the control of MFIs but have an impact on their financial performance and outreach. In other words, these are the external reasons why MFIs’ financial performance and outreach are increasing. The factors are *competition, interest rate, financial awareness, access to funds, trust, inflation, and age*.

Theme 4: Mission Drift

The fourth theme that has emerged from this qualitative study is ‘mission drift’. The theme ‘mission drift’ refers to the fact that the MFIs in Nepal are moving away from their core focus of social welfare towards profit maximisation. The participants stated that the transformation of MFIs in Nepal has created *unhealthy competition*, which has resulted in *duplication/overlap of loans* or *multi-lending* to borrowers. The participants also stated that multiple lending is taking place due to a lack of a central credit information system. Furthermore, the participants stated that transformation has *increased the expenditure* of the institutions. Moreover, one of the participants noted that the transformation of MFIs in Nepal has managed to *reduce the services* that clients were receiving. Finally, some of the participants raised a concern regarding the situation of the microfinance industry in Nepal. They stated that the microfinance institutions in Nepal are *drifting away from their mission*.

V. CONCLUSION

This study examined the impact of the transformation of MFIs on their financial performance and outreach in Nepal and investigated how the transformation affects their financial performance and outreach. Both quantitative and qualitative data were used and analysed, and it can be concluded that the transformation from non-profit oriented to profit-oriented MFIs reduces the profitability and operational self-sufficiency in the short run due to an increase in cost, but increases in the long run. Further, it is also concluded that the number of borrowers and the loan size of profit-

oriented MFIs are increasing over the years. The qualitative study also showed that the transformation of MFIs leads to a change in the *focus of MFIs*, which allows them to increase their *size* and improve their *management and staff efficiency*, which eventually leads to increases in their profitability, operational self-sufficiency, number of borrowers, and loan size. Moreover, this study identified the various exogenous factors, i.e., *competition, interest rate, financial awareness, access to funding, trust, inflation*, and *age*, that affect the performance of MFIs. In addition, the study has found that MFIs in Nepal are heading towards mission drift due to the commercialisation of MFIs.

Utilising the empirical findings from this study, the government and related agencies of Nepal should make a balanced policy that combines strong oversight, a clear way to measure the social performance, client safeguards and institutional support that can help ensure that MFIs achieve both their social and financial objectives rather than just being focused on financial gain.

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